

Amendment and Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120,169.103 / 54666US006

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

REMARKS

This is responsive to the Non-Final Office Action mailed September 25, 2006. Claims 32, 32, 35-40, 43-48, 52-54, and 56 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al., U.S. Patent No. 3,562,968 ("Johnson") in view of Hamerski, U.S. Patent No. 5,593,120 ("Hamerski").

With this Response, claims 57-60 have been added. Claims 31-60 remain pending in the application and are presented for consideration and allowance.

35 U.S.C. §103 Rejections

As acceded to in the Office Action, Johnson "does not disclose that the fasteners attached to the member [of Johnson] by inducing relative rotation between the fastener and the surface conditioning member [of Johnson]...". Instead, the Office Action relies upon Hamerski as disclosing "a method of attaching a planar surface (see FIG. 2) of an attachment member (10) to a member (28) by inducing relative rotation...". According to the Office Action, it would have been obvious to one of skill to modify Johnson in view of Hamerski. Applicant respectfully disagrees.

Johnson relates to a coated abrasive disc used to treat surfaces when attached to a rotary drive device. More particularly, FIG. 2 of Johnson discloses a surface treating assembly 20 comprised of an abrasive disc 30 attached to a drive button 40 by an adhesive 21. The drive button 40 facilitates attachment of the surface treating assembly 20 to a drive assembly 10 when using the abrasive disc 30 to abrade/treat a surface. That is to say, the abrasive disc 30 is permanently adhered to the button 40, and is employed to abrade or otherwise treat a surface. In contrast, the fastening assembly 10 (including the inner portion 20 thereof) of Hamerski is itself bonded to a wall, ceiling, or similar structure, and used to mount a picture (for example) to the wall/ceiling. More particularly, prior to placement against the wall/ceiling, the inner portion 20 is not bonded to anything; rather, the layer 22 of hot-melt adhesive is exposed. Wall or ceiling surfaces are not "surface conditioning members," and are entirely distinct from abrasive discs. In light of the disparate applications, although Hamerski may disclose spin welding the inner

Amendment and Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120.169.103 / 54666US006

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

portion 20 to a ceiling or wall, one of skill would not view this methodology as having any correlation to the abrasive disc and related method of manufacture associated with Johnson. Notably, the abrasive disc backing 31 of Johnson provides a raw drills cloth layer 32 to which the adhesive 21 is applied. Conversely, Hamerski discloses bonding the inner portion 20 to concrete or wall materials. Clearly, concrete, walls, and similar structures have greatly differing material properties as compared to raw drills cloth. Thus, Hamerski cannot be viewed as informing one of skill that the disclosed spin welding methodology would work with materials other than concrete or walls. In fact, nothing in Hamerski even hints that the spin welding technique described therein would function in adhering the fiber-filled nylon drive button 40 to the raw drills cloth layer 32 of Johnson.

In light of the above, it is respectfully submitted that a requisite suggestion or motivation to modify the method of Johnson in view of Hamerski does not exist. As such, claim 31, as well as claims 32-56 depending therefrom, are allowable over the cited art.

Newly Presented Claims

Newly presented claim 57 depends from claim 31 and thus, for at least the above reasons is allowable over the cited art. In addition, claim 57 recites that prior to inducing relative rotation between the fastener and the surface conditioning member, a layer of adhesive is placed on one of the fastener and the surface conditioning member, with the layer of adhesive having a thickness in the range of 0.05 – 0.3 cm. Support for this language is found, for example, at page 8, lines 18-20. In contrast, Hamerski provides no direct disclosure as to a thickness of the hot-melt adhesive layer 22. However, it is clear from the figures of Hamerski that the hot-melt adhesive layer 22 has a thickness commensurate with that of the layer 17 of pressure-sensitive adhesive. In this regard, Hamerski describes that the layer of pressure-sensitive adhesive has a thickness of at least 50 mm, more preferably at least 100 mm. *Hamerski* at col. 4, ll. 48-50. Thus, according to the method of Hamerski, the layer of adhesive has a thickness well outside of the thickness of claim 57 (i.e., with the method of Hamerski, the hot-melt adhesive layer has a

Amendment and Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120.169.103 / 54666US006

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

thickness of at least 5 cm, as compared with the thickness range of 0.05 – 0.3 cm of claim 57). Thus, it is respectfully submitted that claim 57 recites additionally allowable subject matter.

Newly presented claim 58 depends from claim 31 and thus, for at least the above reasons, is allowable. In addition, claim 58 recites that prior to inducing relative rotation between the fastener and the surface conditioning member, the surface conditioning member is releasably mechanically fastened to a frame of a spin welding apparatus. Support for this language is found, for example, at page 14, lines 10-11. In contrast, the substrate 28 of Hamerski (identified in the Office Action as being a “member”) is a wall or ceiling; the wall or ceiling 28 is inherently fixed in space. Thus, with the method of Hamerski, the “member 28” is not fastened to a separate frame of a spin welding apparatus. Nothing in Hamerski teaches to the contrary. Thus, modifying the method of Johnson in view of Hamerski would not meet the limitations of claim 58, such that claim 58 recites additionally allowable subject matter.

Newly presented claim 59 depends from claim 31 and thus, for at least the above reasons, is allowable. In addition, claim 59 recites that prior to inducing relative rotation between the fastener and the surface conditioning member, a fastener is first rotated and then moved, while rotating, toward the surface conditioning member. In this regard, with initial rotation of the fastener, the layer of adhesive is not in direct contact with both of the fastener and the surface conditioning member; conversely, following movement of the fastener toward the surface conditioning member, the layer of adhesive is in direct contact with both of the fastener and the surface conditioning member. Support for this language is found, for example, at page 14, lines 18-29. In contrast, the methodology of Hamerski entails pressing the layer 22 of hot-melt adhesive (otherwise previously applied to the inner portion 20) against the substrate/member 28, and then rotating the inner portion 20. *Hamerski* at col. 6, ll. 14-18. Notably, in all other embodiments of Hamerski (i.e., FIGS. 3-9), the component that is otherwise rotated to create frictional heat is subsequently removed from the substrate, and thus cannot constitute the claimed “fastener.” Thus, modifying the method of Johnson in view of the method of Hamerski does not result in the steps of claim 59, such that newly presented claim 59 recites additionally subject matter.

Amendment and Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120.169.103 / 54666US006

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

Newly presented claim 60 depends from claim 31 and thus, for at least the above reasons, is allowable. In addition, claim 60 recites that prior to inducing relative rotation between the fastener and the surface conditioning member, a spin welding apparatus is provided. The spin welding apparatus includes a fixture and a frame, with the fixture being rotatable and connected to the frame such that the frame has only two degrees of freedom of movement relative to the frame. The fastener is attached to the fixture, and the surface conditioning member is attached to the frame. Support for this language is found, for example, in FIGS. 5 and 6, as well as at page 13, line 1 – page 15, line 5. In contrast, the method of Hamerski includes connecting an ordinary household drill to the inner portion 20, and using the drill to rotate the inner portion 20. Clearly, the drill is held in the user's hand(s), and is in no way connected to the substrate/member 28. That is to say, with the methodology of Hamerski, the fixture and frame are not provided, let alone a fixture that is connected to the frame so as to provide only two degrees of freedom of movement as otherwise required by claim 60. Thus, it is respectfully submitted that newly presented claim 60 recites additionally allowable subject matter.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 31-60 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 31-6- are respectfully requested.

Applicants hereby authorize the Commissioner for Patents to charge Deposit Account No. 50-0471 in the amount of \$200.00 to cover the fees as set forth under 37 C.F.R. 1.16(i).

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Daniel Biesterveld at Telephone No. (651) 737-3193 or Timothy A. Czaja at Telephone No. (612) 573-2004. In addition, all correspondence should continue to be directed to the following address:

Amendment and Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120.169.103 / 54666US006

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

3M Innovative Properties Company
Office of Intellectual Property Counsel
P.O. Box 33427
St. Paul, MN 55133-3427

Respectfully submitted,

Peter J. Fritz et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC

Fifth Street Towers, Suite 2250

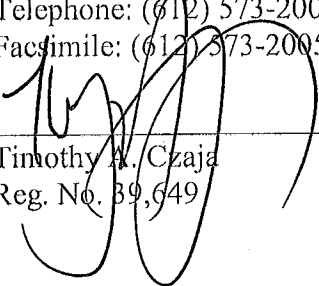
100 South Fifth Street

Minneapolis, MN 55402

Telephone: (612) 573-2004

Facsimile: (612) 573-2005

Date: February 26, 2007
TAC:jmc



Timothy A. Czaja
Reg. No. 39,649